

Fall 8-5-1953

A Study of Employment Costs for a Graduate Staff Nurse

Marie Margaret Ames
University of Colorado Boulder

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A STUDY OF EMPLOYMENT COSTS FOR A GRADUATE

This Thesis for the M.S. degree by

STAFF NURSE

Marie Margaret Ames

by

has been approved for the

Marie Margaret Ames

School of

Diploma, Johns Hopkins Hospital School of Nursing, 1937

Nursing

B.S., University of Chicago, 1948

by

Marguerite Packard

Mary B. Hubbard

Date August 5, 1953

A Thesis submitted to the Faculty of the Graduate
School of the University of Colorado in partial
fulfillment of the requirements of the Degree

Master of Science

School of Nursing

1953

This Thesis for the M.S. degree by

Marie Margaret Ames

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The writer wishes to express her sincere

School of

appreciation to those whose guidance and encour-

Nursing

agement have made this study possible.

by

To Miss Marguerite Paetznick and Miss Marjory

Marguerite Paetznick

Marjory B. Hubbard

Date August 5, 1953

Gratitude is also sincerely extended to those

members of the nursing staff and hospital staff

who participated in the development of the study.

Grateful acknowledgment is due to the

Administration of the Hospital for their coopera-

tion and assistance in carrying out this study.

Ames, Marie Margaret (M.S., Nursing)

A Study of Employment Costs for a Graduate Staff Nurse

Thesis directed by Associate Professor Marguerite Paetznick

ACKNOWLEDGMENTS

The purpose of this study is to develop a method for determining the costs involved in the employment and initial orientation of

The writer wishes to express her sincere appreciation to those whose guidance and encouragement have made this study possible.

staff nurse at X Hospital, and to make recommendations in relation to cost of employment. To Miss Marguerite Paetznick and Miss Marjory

Hibbard she is deeply grateful for the interest, data and helpful suggestions, and the inspiration and encouragement without which this study would not have been completed.

Gratitude is also sincerely extended to those members of the nursing staff and hospital staff who participated in the employment procedure.

The study showed that employment costs did not vary greatly for this type of work. Grateful acknowledgment is due to the Administration of the Hospital for their cooperation and assistance in carrying out this study.

No single figure can be stated as the cost of employment of a graduate staff nurse. As details are added to the procedure or taken away, and as long as tasks and workers are considered in the method used, the costs will vary from time to time and in different institutions.

Ames, Marie Margaret (M.S., Nursing) approved as to form and content.
I recommend its publication.

A Study of Employment Costs for a Graduate Staff Nurse

Thesis directed by Associate Professor Marguerite Paetznick

Signed

The purpose of this study was to develop a method for determining the costs involved in the employment and initial orientation of a graduate staff nurse at X Hospital, to determine the average cost involved in the employment and initial orientation of a graduate staff nurse at X Hospital, and to make recommendations in relation to cost of employment and turnover figures.

A form was developed for collecting and tabulating the data and tried out with a new graduate staff nurse. It was revised during and after the try-out period and in final form was used with six new graduate staff nurses as they sought employment during April and May, 1953. The costs involved in employing the graduate staff nurses were calculated on the basis of the hourly salary rate of those workers who participated in the employment procedure.

The study showed that employment costs did not vary greatly for this type of worker, the minimum cost being \$62.47 and the maximum, \$69.93. The Nursing Service Department contributed 86 per cent of the cost of the employment procedure.

No single figure can be stated as the cost of employment of a graduate staff nurse. As details are added to the procedure or taken away, and as long as tasks and workers are considered in the method used, the costs will vary from time to time and in different institutions.

This abstract of about 200 words is approved as to form and content.
I recommend its publication.

Chapter

THE PROBLEM AND DEFINITION OF TERMS

Signed

Marguerite Faltz

Instructor in charge of dissertation

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The problem

Statement of the problem

Purpose of the study

Need for the study

Limitations and scope of the study

Assumptions

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CHAPTER I

THE PROBLEM AND DEFINITION OF TERMS USED

I. INTRODUCTION

Costs involved in employing new members for an institution or organization vary considerably depending upon administrative details necessary to induct a new employee into the service of the organization, as well as the number of workers involved in the employment procedure. Costs vary also depending upon the rate of pay in various localities if salaries of workers involved are to be considered in costs of an employment procedure. "One firm estimates that it costs them some \$300 to hire a new employee and get him to a point of satisfactory productivity, on an ordinary machine operation job in their plant."¹

In nursing, employment costs can be reflected in turnover as it can be in industry. The nurse administrator has an opportunity to show that she is aware of employment costs, and in the "cost language of shopmen, she can make clear the wastes involved and thus enlist the interest of others in a program to reduce excessive labor turnover."²

¹ Joseph F. Waters, "Reducing Labor Turnover," Personnel Journal, XXIII:102, July-August, 1949.

² Paul Pigors and Charles A Myers, Personnel Administration (New York: McGraw-Hill Book Company, Inc., 1951), p. 128.

II. THE PROBLEM

Statement of the problem. To determine the costs involved in the employment and initial orientation of a graduate staff nurse at X Hospital.

Purpose of the study. It is the purpose of this study:

1. to develop a method for determining the average cost involved in the employment and initial orientation of a graduate staff nurse at X Hospital,
2. to determine the average cost involved in the employment and initial orientation of a graduate staff nurse at X Hospital,
3. to make recommendations in relation to cost of employment and turnover figures.

Need for the study. A study of the cost involved in employing a graduate staff nurse at X Hospital has never been done nor have studies of this nature been reported in the nursing literature that was reviewed; neither has such a study been done on other personnel employed in the Medical Center with which X Hospital is connected. If a method for determining the cost involved in the employment and orientation of a graduate staff nurse at X Hospital can be devised, it would be a valuable guide in determining employment costs of other employees. Finally, if the cost of employment is determined, it could be of value in making turnover figures more meaningful and in presenting and justifying the budget to the Director of X Hospital.

Limitations and scope of the study.

1. Cost of salaries of those workers who perform the various steps in the employment procedure of the graduate staff nurse will be considered. constant.
2. Unit costs which can be determined such as: X-ray, stationery, and postage will be considered.
3. Those costs which are not adaptable to calculations such as: pro-ration for purchase and depreciation of laboratory, International Business Machine Equipment, and overall running expenses will be excluded.
4. The costs involved will be calculated from the period beginning with the time the first letter is written to the nurse and/or an interview is held until she has been on the unit to which she is assigned for ten days.
5. No attempt will be made to withhold knowledge of participation in the study from colleagues of the participants.
6. Cost of urinalysis and blood count were not included because the laboratory department had no figures available for these procedures.

Assumptions. It is assumed that:

1. many workers' time and salary go into the employment procedure of a graduate staff nurse;
2. a trend in costs will be evident after a limited number of nurses are followed through this procedure;
3. average time used in routine clerical work for payroll

procedure will be constant;

4. average length of time it takes a technician in the laboratory to do the routine procedures such as urinalysis, blood count, or X-ray will be constant.

III. DEFINITIONS OF TERMS USED

The remainder of the thesis is organized into four chapters.

Cost of employment. Expenses involved in hiring an employee.

General orientation. An introduction of the new nurse to her surroundings by means of a tour of the hospital and acquainting her with the things she needs to know about the history of the hospital, policies, and general procedures which she will be called upon to perform.

Initial orientation to the ward. The necessary direction or instruction given to the new nurse to acquaint her with her job on the ward.

Induction. A specified time devoted to the introduction of the graduate staff nurse to the Nursing Service Department.

X Hospital. A general hospital which operates as a teaching unit and cares for the indigent ill of the state. It comprises one of the five divisions in the Department of Medicine and is connected with the state university. It has a total bed capacity of 322, including twenty-two bassinets and twenty premature infant bassinets.

Graduate staff nurse. A professional registered nurse

licensed by the State Board of Nurse Examiners. Employees in this class perform general nursing activities on a ward in a hospital or clinic.

IV. ORGANIZATION OF THE REMAINDER OF THE THESIS

The remainder of the thesis is organized into four chapters and an appendix as follows:

Chapter II. This chapter reviews available literature, conferences, and correspondence on the subject.

Chapter III. This chapter presents the way in which the method used in this study was developed and a brief explanation as to how the form was developed and tried. The steps in the collection of the data are described.

Chapter IV. An analysis is made of the data collected and the average cost of employing a graduate staff nurse at X Hospital is computed, together with tables comparing the costs involved in employing the nurses studied. Discussion of the implications in relation to rate of turnover is also included.

Chapter V. This final chapter presents a summary, conclusions, and recommendations.

Appendix. The appendix contains:

1. replies to correspondence
2. letters granting permission to carry on the study

3. written instructions to the new nurses participating in the study

4. a copy of the diary specific for a one-day period

5. definitions of the tasks performed by employees of X Hospital in the employment procedure of a staff nurse

6. the form used to collect the data in preparation for computing the cost of employment of a graduate staff nurse.

Literature related to the subject of costs involved in the employment of workers is quite limited. Studies on such costs are referred to in various books on personnel management but they are not given except as these costs are related to turnover. Cooley states that a simple case of research, but one of considerable value, relating to the measurement of labor turnover, has been conducted in effects.³

When it was shown that turnover in some industries was as high as 1000 per cent and that each replacement cost a company anywhere from ten dollars to several hundred, the industry was soon convinced that something must be done to reduce this source of losses.⁴

Cooley in an article in Modern Hospital states that cost information is of two types. One is the estimated cost applicable to an operation. It would include the materials, labor, and for distribution loads a distribution of overhead to the full cost of the operation. Cost estimates would be valuable in determining whether the cost for services and as a check against actual operating costs for control. The second type of cost information is the actual cost as determined from a comparison of the total cost of operating

³ Michael J. Juchas, Personnel Management (Chicago: Edward Arnold, Inc., 1950), p. 654.

⁴ Loc. cit.

CHAPTER II

REVIEW OF LITERATURE, CONFERENCES, AND CORRESPONDENCE

I. LITERATURE

Literature related to the subject of costs involved in employing workers is quite limited. Studies on such costs are referred to in various books on personnel management but little information is given except as these costs are related to turnover costs. Jucius states that a simple case of research, but one of the oldest, is that relating to the measurement of labor turnover, its causes and effects.³

When it was shown that turnover in some companies ran as high as 1000 per cent and that each replacement might cost a company anywhere from ten dollars to several hundred, industry was soon convinced that something should be done to reduce this source of losses.⁴

Cooley in an article in Modern Hospital says that cost information is of two types. One is the estimated cost applicable to an operation. It would include the materials, labor, and for different loads a distribution of overhead to the individual operation. Such cost estimates would be valuable in determining charges to be made for services and as a check against actual operation for purpose of control. The second type of cost information is the actual unit cost as determined from a comparison of the total cost of rendering

³ Michael J. Jucius, Personnel Management (Chicago: Richard D. Irwin, Inc., 1950), p. 654.

⁴ Loc. cit.

a service with the amount of service produced. The hospital, for instance, intends to serve the public, and it must do so whether it loses money or not; but the service it renders can be efficient and economical or it can be costly and wasteful. Only through adequate records and analysis can it be ascertained which type of operation is present and whether some parts are efficient or inefficient.⁵

MacNicol emphasizes the need of accounting for costs as a part of the daily existence of every individual or organization.⁶ In a later article MacNicol says that cost accounting has a value in raising standards of hospital administration, promoting economy and efficiency, and improving hospital relations with the public, government, and other agencies. Knowledge of unit costs is also valuable as a means of impressing potential contributors. Men of substance have a great respect for efficiency, and when hospitals cannot show them where and why their money is needed, their contributions may be curtailed.⁷

Scott, Clothier, Mathewson, and Spriegel point out that each person who leaves his job unnecessarily creates an economic loss. In the first place, management is losing the services of a man whose

⁵ Henry B. Cooley, "You Have to Know Your Costs Before You Can Control Them," Modern Hospital, 76:88-90, May, 1951.

⁶ Alexander M. MacNicol, "Cost Accounting in Hospitals," Hospital Management, 72:122-125, October, 1951.

⁷ Alexander M. MacNicol, "Cost Accounting in Hospitals," Hospital Management, 72:112-115, November, 1951.

skill in his work has been developed at considerable expense. This necessitates the breaking in of a new man and the cost of giving him the necessary training to bring him to the same degree of efficiency as the man he replaces. During this period of training loss, waste both in material and time, are greater than would have been the case had the former incumbent carried on. With the new and untrained man on the job, production is lessened.⁸ They also point out that the cost of labor turnover per employee varies with the type of work done by each employee. "The office cost of hiring, record adjustment, and physical examination will approximate \$10 and in some cases much higher. Added to employment office cost these will range from \$50 to \$500 or more."⁹

Waters states that as one considers the time and money spent in recruiting, screening, interviewing, selecting, and orienting new applicants to a job, together with the fact that the new employee is not very productive for the first several weeks on the job, costs involved in employing a person are justifiably high. "The mere act of entering his name in various company records takes a good deal of somebody's time; and the time is money in modern business."¹⁰

⁸ Walter Scott, Robert Clothier, Stanley Mathewson, William Spriegel, Personnel Management (New York: McGraw-Hill Book Company Inc., 1941), p. 499.

⁹ Ibid., p. 500.

¹⁰ Joseph F. Waters, "Reducing Labor Turnover," Personnel Journal, XXIII:102, July-August, 1949.

¹¹ See Appendix A, page 48, for copies of the inquiries.

II. CONFERENCES

Since the literature on the subject of employment costs was so limited, the assistant personnel director and hospital administrators of three hospitals in the city where this study was done were questioned to see if cost studies had been made in these hospitals. In one hospital a study of this type had never been done, but the assistant personnel director was willing to give an estimated cost of employing a graduate nurse at this organization. The cost given for this procedure was \$300. This was just an estimated cost and included the correspondence carried on between the Central Administrative Agency and the local hospital, the selection process passed on by the Nursing Department, loyalty oath, assigning a grade to the applicant, and the physical examination. Personnel in the other two hospitals in the city were unable to give any information as to their costs involved in employing a staff nurse.

III. CORRESPONDENCE

The Merchants and Manufacturers Association in Los Angeles, California, was contacted by mail since they did a survey analysis of "Employment Turnover Costs" in 1948. Although this survey was also conducted on an estimate of what local companies thought it cost, the correspondence and questionnaire which was used are included in Appendix A of this study.¹¹

¹¹ See Appendix A, page 48, for copies of replies from inquiries.

IV. SUMMARY

This review of the available literature, though limited, reveals the need for studies on actual costs. All of the studies referred to in the literature are broader in their scope than employment costs only, since they consider the cost of turnover. Employment costs are just one phase of this broad subject. Costs, whether employment costs or turnover costs, will vary with the type of work done by each employee; but cost studies are valuable in raising standards of hospital administration and promoting economy and efficiency as well as improving public relations.

1. The form was tried out on a new graduate staff nurse.
2. The form was revised during and after the try-out period.
3. The employees who assist in the employment of new staff nurses were contacted and their cooperation sought in the study.
4. The new graduate staff nurse was oriented to the unit and the "book" ¹⁵ was given to her which was to be used during the ten-day period on the unit.
5. The form for collecting the data was used during the ten-day period of the new graduate staff nurses.

¹² See Appendix B, page 55, for form used for collecting data.

¹³ See Appendix C, page 57, for form used for collecting data of Nursing Service.

¹⁴ See Appendix D, page 59, for form used for collecting data of nurses.

¹⁵ See Appendix E, page 62, for "book" given to new graduate staff nurse.

CHAPTER III

DEVELOPING THE METHOD AND COLLECTING THE DATA

I. STEPS IN DEVELOPING THE METHOD

The purpose of this chapter is to present the steps used in developing the method and collecting the data. Before the study could be undertaken, it was necessary to secure the permission of the Director¹² and the Director of Nursing Service¹³ of X Hospital.

After permission had been granted the following steps were taken:

1. A form was developed for collecting and tabulating the data.
2. The form was tried out on a new graduate staff nurse.
3. The form was revised during and after the try-out period.
4. The employees who assist in the employment procedure were contacted and their cooperation sought in relation to the study.
5. The new graduate staff nurse was oriented¹⁴ and a small notebook¹⁵ was given to her which was to be used as a diary for the ten-day period on the unit.
6. The form for collecting the data was used on a limited number of new graduate staff nurses.

¹² See Appendix B, page 55, for permission from the Director.

¹³ See Appendix C, page 57, for permission from the Director of Nursing Service.

¹⁴ See Appendix D, page 59, for letter orienting the new staff nurse.

¹⁵ See Appendix E, page 62, for sample diary.

7. The costs involved in employing the graduate staff nurses were calculated by using the hourly salary rate of those workers who participated in the employment procedure.

II. DEVELOPING THE FORM

From the writer's knowledge of the employment procedure a form was devised which was to be used to collect the data showing the personnel involved and the tasks each performs in this procedure. It was realized that although the first form was made as complete as possible, when it was tried out further tasks that were a necessary part of the employment procedure would be discovered. Since the nurse's presence was not necessary in some steps of the employment procedure such as in the payroll department and X-ray department during the processing of the film, the employees of those departments were contacted and asked as to the steps they performed and the time they required to perform them.

Trying and revising the form. The form was developed and used on one graduate staff nurse as she was inducted into the Nursing Service Department. She was followed from the time she arrived at the Nursing Service Department until she was taken to the specific nursing unit where she was assigned to duty. During this try-out period the form was made more complete by adding various steps which would make the study more meaningful.

Orienting the new staff nurse. After the nurse was taken to

Six nurses who were applying for employment at this point in the study were chosen to participate. Three who sought employment through correspondence and three who sought employment through interview were selected. The nurses chosen were followed through the employment procedure, and the workers were timed as they carried out the appropriate tasks in the procedure. The tasks were defined to clarify the form¹⁹ for the reader.

III. SUMMARY

This chapter presents the development of the form used in the collection of the data and the try out and revision of this form for use in the actual study. The use of the diary by the nurses participating in the study is explained, and the method by which the writer collected the remainder of the necessary information is described.

The workers who participated in the experiment are shown in the tables as well as the amount of time spent on each task. The hourly rate of pay for the worker is also shown. The calculations are made on the basis of the experiment. At the beginning of each fiscal year, the program is reviewed by each department head including the Director of the Department.

¹⁹ See Appendix G, page 67, for definition of tasks performed as they appear on the form used.

CHAPTER IV

ANALYSIS AND INTERPRETATION OF THE DATA

I. CALCULATING THE COSTS

Stationery costs. The purpose of this chapter is to analyze the data collected and to present it in a form which can be interpreted and compared. The stationery used in one employment procedure was collected and the cost calculated on the basis of the number of items used. Table I shows the cost of stationery used to employ a new nurse.

Graduate staff nurses participating. Since six graduate staff nurses participated in the study, they are designated as Nurse A, B, C, D, E, and F. Tables are shown illustrating how the cost of employment for each nurse was determined. The numerous tasks involved in the employment procedure are presented in the "data form" in Appendix F so will not be repeated in the tables.

The workers who participated in the employment procedure are shown in the tables as well as the amount of time each spent in doing the tasks. The hourly rate of pay for the worker is also given since calculations are made on the basis of the worker's hourly salary. At the beginning of each fiscal year, the payroll department submits to each department head including the Director of Nursing Service a list of monthly salary scales with the hourly rates computed. This list was used in making the calculations and was made available for this

TABLE I

STATIONERY USED IN THE EMPLOYMENT PROCEDURE

Stationery items	Cost
1. Manilla Folders (3)	\$.09
2. Acco Fasteners (2)	.10
3. Application Form (2)	.018
4. Letter of Appointment	.01
5. Letterhead Stationery (3)	.018
6. Bond Paper (3 sheets)	.015
7. Envelopes (3)	.012
8. Stamps (3)	.09
9. Employment Status (2)	.012
10. Professional Record	.013
11. Evaluation Form	.028
12. Record of Accumulated Sick Time	.01
13. Room Registration Slip	.01
14. Payroll Change Slip	.008
15. X-ray Sheet	.01
16. Immunization Record	.006
17. Admission-Emergency-OPD Sheet	.005
18. Health History	.01
19. Medical Record	.006
20. Summary Sheet	.006
21. Laboratory Sheet	.006
22. Clinic Card	.004
23. Laboratory Sheets (3)	.012
24. Carbon Paper (1)	.025
25. Tickler Card	.009
26. Graduate Nurse Record Card (2)	.006
27. Appointment or Change of Status Card	.009
28. I.B.M. Cards	.01
29. Folder for Health History (Echo)	.35
30. Payroll Roster	.003
31. Check	.006
Total Cost	\$.917

study by the payroll department.

Each nurse is placed on the payroll two days before she is assigned to a ward for duty, and these two days are spent in induction and general orientation. It was, therefore, necessary to add to the calculated costs in each table \$20.80, the value of the sixteen hours the nurse spent in induction and general orientation multiplied by her hourly rate of pay, \$1.30. Recruitment costs were not considered in this study since X Hospital had no definite method to determine how many nurses came as a result of advertising. The Director of Nursing Service knew how many nurses wrote as a result of Nursing Journal advertisements, but she could not be sure others had not come because of the advertisements but had failed to mention it.

Nurse A. Nurse A was followed through the employment procedure and was assigned to a Surgical Ward. She sought employment through correspondence and chose to live in the Women's Residence Hall. Since she was employed through correspondence, the total cost for stationery was used in calculating the employment cost. Because she chose to live in the Women's Residence Hall more workers were involved in the employment procedure than would have been had she chosen to live outside. Table II shows the details of the cost of employing Nurse A exclusive of stationery, X-ray, salary of Nurse A for two days during induction, and the initial orientation to the ward which was charged to cost of employment at the rate of her hourly salary of \$1.30. These are added and totaled in Table III on page 20

TABLE II

THE WORKERS, TIME SPENT, AND HOURLY SALARY
USED IN CALCULATING EMPLOYMENT COSTS

NURSE A

Worker	Time Spent	Hourly Salary	Cost
Director, Nursing Service	8 min.	\$2.93	\$.39
Associate Director I	8 hrs 35 "	2.30	19.74
Associate Director II	9 "	2.45	.37
Secretary I, Nursing Service	32 "	1.58	.84
Secretary II, Nursing Service	5 "	1.30	.11
Director, Personnel	1 "	2.90	.05
Senior Clerk, Personnel	6 "	1.40	.14
Clerk, Personnel	5 "	1.07	.09
Senior Clerk, Insurance	22 "	1.30	.48
Doctor, Health Service	30 "	2.62	1.31
Nurse, Health Service	6 "	1.58	.16
Clerk, Health Service	14 "	1.07	.25
Nurse, Eye Clinic	3 "	1.30	.06
Clerk, Record Room	2 "	1.30	.04
Clerk, Clinic Cashier	2 "	.99	.04
Clerk, Business Office	3 "	1.64	.08
Head Nurse (Emergency Room)	50 "	1.71	1.43
Head Nurse (Central Supply)	40 "	2.10	1.40
Medical Supervisor	1 hr 50 "	2.10	3.85
Surgical Supervisor	1 hr 30 "	2.10	3.15
Director, Residence Hall	5 "	1.58	.13
Receptionist, Residence Hall	23 "	1.07	.41
Technician, O.P.D.	5 "	1.60	.13
Technician, Laboratory	20 "	1.65	.53
Clerk, X-ray	3 "	1.30	.07
Secretary, X-ray	7 "	1.35	.16
Doctor, X-ray	3 "	4.34	.22
Technician, X-ray	1 hr 3 "	1.64	1.72
Clerk, Payroll Department	8 "	1.20	.16
Clerk, IBM Department	6 "	1.52	.15
Head Nurse (Ward Assigned)	1 hr 15 "	1.93	2.41
Assistant Head Nurse	26 "	1.52	.66
Staff Nurse 1	50 "	1.35	1.13
Staff Nurse 2	6 "	1.35	.14
Staff Nurse 3	7 "	1.40	.16
Total Cost			\$ 42.16

TABLE III

COSTS INVOLVED IN EMPLOYMENT AND INITIAL
ORIENTATION TO UNIT OF

NURSE A

Employment Cost	\$ 42.16
Initial Orientation to Ward	
Charged to Cost of Employment	3.55
Stationery Cost92
Salary of Nurse A	
for Two Days during Induction	20.80
Cost of X-ray	2.50
Total Cost of Employment	\$ 69.93

giving the total cost of employing Nurse A as \$69.93.

Nurse B. Nurse B was followed through the employment procedure and was assigned to a Medical Ward. She sought employment by personal interview and did not wish to live in the Women's Residence Hall. The cost of stationery items 5, 6, 7, 8, and 13 listed in Table I (page 17) is omitted from this cost since this nurse was employed through interview. Table IV shows the details of the cost of employing Nurse B exclusive of stationery, X-ray, salary of Nurse B for two days during induction, and the initial orientation to the ward which was charged to cost of employment at the rate of her hourly salary of \$1.30. These are added and totaled in Table V on page 23, giving the total cost of employing Nurse B as \$64.23.

Nurse C. Nurse C was followed through the employment procedure and was assigned to a Surgical Ward. She sought employment through correspondence and chose to live in the Women's Residence Hall. Table VI on page 24 shows the details of the cost of employing Nurse C exclusive of stationery, X-ray, salary of Nurse C for two days during induction and the initial orientation to the ward which was charged to cost of employment at the rate of her hourly salary of \$1.30. These are added and totaled in Table VII on page 25, giving the total cost of employing Nurse C as \$65.08.

Nurse D. Nurse D was followed through the employment procedure and was assigned to a Medical Ward. She sought employment through correspondence and chose to live in the Women's Residence

TABLE IV

THE WORKERS, TIME SPENT, AND HOURLY SALARY
USED IN CALCULATING EMPLOYMENT COSTS

NURSE B

Worker	Time Spent	Hourly Salary	Cost
Director, Nursing Service	2 min.	\$2.93	\$.10
Associate Director	9 hrs 11 "	2.30	21.12
Secretary I, Nursing Service	8 "	1.58	.21
Secretary II, Nursing Service	5 "	1.30	.11
Director, Personnel	1 "	2.90	.05
Senior Clerk, Personnel	8 "	1.40	.19
Clerk, Personnel	18 "	1.07	.32
Senior Clerk, Insurance	11 "	1.30	.24
Doctor, Health Service	35 "	2.62	1.53
Nurse, Health Service	4 "	1.58	.11
Clerk, Health Service	12 "	1.07	.20
Nurse, Eye Clinic	4 "	1.30	.09
Clerk, Record Room	1 "	1.30	.02
Clerk, Clinic Cashier	2 "	.99	.04
Clerk, Business Office	3 "	1.64	.08
Head Nurse (Emergency Room)	50 "	1.71	1.43
Head Nurse (Central Supply)	40 "	2.10	1.40
Medical Supervisor	1 hr 40 "	2.10	3.50
Surgical Supervisor	1 hr 30 "	2.10	3.15
Technician, O.P.D.	6 "	1.60	.16
Technician, Laboratory	20 "	1.65	.55
Clerk, X-ray	1 "	1.30	.02
Secretary, X-ray	8 "	1.35	.18
Doctor, X-ray	3 "	4.34	.22
Technician, X-ray	1 hr 3 "	1.64	1.72
Clerk, Payroll Department	7 "	1.20	.14
Clerk, IBM Department	6 "	1.52	.15
Head Nurse (Ward Assigned)	50 "	1.71	1.43
Staff Nurse 1	5 "	1.35	.11
Staff Nurse 2	10 "	1.30	.22
Total Cost			\$ 38.79

TABLE V

THE WORKERS, TIME SPENT, AND COSTS INVOLVED IN CALCULATING EMPLOYMENT

TABLE V

NURSE B

COSTS INVOLVED IN EMPLOYMENT AND INITIAL
ORIENTATION TO UNIT OF

Worker

NURSE B

Director, Nursing Service	
Associate Director I	
Associate Director II	
Secretary II, Nursing Service	
Secretary II, Nursing Service	
Director, Personnel	
Senior Clerk, Personnel	
Clerk, Insurance	
Doctor, Health Service	
Nurse, Health Service	
Clerk, Eye Clinic	
Clerk, Clinic Cashier	
Clerk, X-ray	
Head Nurse (Emergency Room)	
Head Nurse (Central Supply)	
Medical Supervisor	
Director, Residence Hall	
Receptionist, Residence Hall	
Technician, X-ray	
Technician, Laboratory	
Clerk, X-ray	
Secretary, X-ray	
Doctor, X-ray	
Technician, X-ray	
Clerk, Payroll Department	
Clerk, IBM Department	
Head Nurse (Ward Assigned)	
Assistant Head Nurse	
Employment Cost	\$ 38.79
Initial Orientation to Ward	
Charged to Cost of Employment	1.36
Stationery Cost78
Salary of Nurse B	
for Two Days during Induction	20.80
Cost of X-ray	2.50
Total Cost of Employment	\$ 64.23

Total Cost

TABLE VI

THE WORKERS, TIME SPENT, AND HOURLY SALARY
USED IN CALCULATING EMPLOYMENT COSTS

NURSE C

Worker	Time Spent	Hourly Salary	Cost
Director, Nursing Service	10 min.	\$2.93	\$.49
Associate Director I	8 hrs 46 "	2.30	20.16
Associate Director II	13 "	2.45	.53
Secretary I, Nursing Service	36 "	1.58	.95
Secretary II, Nursing Service	5 "	1.30	.11
Director, Personnel	1 "	2.90	.05
Senior Clerk, Personnel	6 "	1.40	.14
Clerk, Personnel	11 "	1.07	.20
Senior Clerk, Insurance	15 "	1.30	.33
Doctor, Health Service	24 "	2.62	1.05
Nurse, Health Service	3 "	1.58	.08
Clerk, Health Service	10 "	1.07	.18
Nurse, Eye Clinic	4 "	1.30	.09
Clerk, Record Room	2 "	1.30	.04
Clerk, Clinic Cashier	2 "	.99	.04
Clerk, Business Office	3 "	1.64	.08
Head Nurse (Emergency Room)	50 "	1.71	1.43
Head Nurse (Central Supply)	40 "	2.10	1.40
Medical Supervisor	1 hr 50 "	2.10	3.85
Surgical Supervisor	1 hr 30 "	2.10	3.15
Director, Residence Hall	5 "	1.58	.13
Receptionist, Residence Hall	13 "	1.03	.22
Technician, O.P.D.	3 "	1.60	.08
Technician, Laboratory	20 "	1.65	.53
Clerk, X-ray	1 "	1.30	.02
Secretary, X-ray	7 "	1.35	.16
Doctor, X-ray	3 "	4.34	.22
Technician, X-ray	1 hr 12 "	1.64	1.69
Clerk, Payroll Department	7 "	1.20	.14
Clerk, IBM Department	6 "	1.52	.15
Head Nurse (Ward Assigned)	4 "	2.01	.13
Assistant Head Nurse	49 "	1.52	1.24
Total Cost			\$ 39.06

TABLE VII

COSTS INVOLVED IN EMPLOYMENT AND INITIAL
ORIENTATION TO UNIT OF

NURSE C

Employment Cost	\$39.06
Initial Orientation to Ward	
Charged to Cost of Employment	1.80
Stationery Cost92
Salary of Nurse C	
for Two Days during Induction	20.80
Cost of X-ray	2.50
Total Cost of Employment	\$ 65.08

Hall. Table VIII shows the details of the cost of employing Nurse D exclusive of stationery, X-ray, salary of Nurse D for two days during induction, and the initial orientation to the ward which was charged to cost of employment at the rate of her hourly salary of \$1.30.

These are added and totaled in Table IX on page 28, giving the total cost of employing Nurse D as \$65.33.

Nurse E. Nurse E was followed through the employment procedure and was assigned to a Surgical Ward. She sought employment through correspondence and chose to live in the Women's Residence Hall. Table X on page 29 shows the details of the cost of employing Nurse E exclusive of stationery, X-ray, salary of Nurse E for two days during induction, and the initial orientation to the ward which was charged to cost of employment at the rate of her hourly salary of \$1.30. These are added and totaled in Table XI on page 30, giving the total cost of employing Nurse E as \$64.83.

Nurse F. Nurse F was the last nurse to be followed through the employment procedure in this study. She was a graduate of X Hospital and did not have to go through some of the details of employment such as the physical examination or X-ray as did the other new nurses. Nurse F was assigned to a specialized area (tuberculosis) which she had not had as a student in X Hospital, so it was felt that her orientation would need to be as detailed as the new nurse to a less specialized area in a new hospital. She did not choose to live in the Women's Residence Hall. Since she sought

TABLE VIII

THE WORKERS, TIME SPENT, AND HOURLY SALARY
USED IN CALCULATING EMPLOYMENT COSTS

NURSE D

Worker	Time Spent	Hourly Salary	Cost
Director, Nursing Service	11 min.	\$2.93	\$.54
Associate Director I	8 hrs 49 "	2.30	20.28
Associate Director II	15 "	2.45	.61
Secretary I, Nursing Service	38 "	1.58	1.00
Secretary II, Nursing Service	5 "	1.30	.11
Director, Personnel	1 "	2.90	.05
Senior Clerk, Personnel	11 "	1.40	.26
Clerk, Personnel	7 "	1.07	.12
Senior Clerk, Insurance	13 "	1.30	.28
Doctor, Health Service	19 "	2.62	.83
Nurse, Health Service	5 "	1.58	.13
Clerk, Health Service	12 "	1.07	.20
Nurse, Eye Clinic	7 "	1.30	.15
Clerk, Record Room	2 "	1.30	.04
Clerk, Clinic Cashier	2 "	.99	.04
Clerk, Business Office	3 "	1.64	.08
Head Nurse (Emergency Room)	50 "	1.71	1.43
Head Nurse (Central Supply)	40 "	2.10	1.40
Medical Supervisor	1 hr 40 "	2.10	3.50
Surgical Supervisor	1 hr 30 "	2.10	3.15
Director, Residence Hall	5 "	1.58	.13
Receptionist, Residence Hall	13 "	1.03	.22
Technician, O.P.D.	5 "	1.60	.13
Technician, Laboratory	20 "	1.65	.53
Clerk, X-ray	1 "	1.30	.02
Secretary, X-ray	7 "	1.35	.16
Doctor, X-ray	3 "	4.34	.22
Technician, X-ray	1 hr 3 "	1.64	1.72
Clerk, Payroll Department	7 "	1.20	.14
Clerk, IBM Department	6 "	1.52	.15
Head Nurse (Ward Assigned)	8 "	1.58	.21
Assistant Head Nurse	35 "	1.52	.89
Staff Nurse 1	33 "	1.35	.74
Total Cost			\$ 39.46

TABLE IX

THE WORKERS, TIME SPENT, AND HOURLY RATES
USED IN CALCULATING EMPLOYMENT COSTS

TABLE IX

COSTS INVOLVED IN EMPLOYMENT AND INITIAL
ORIENTATION TO UNIT OF

Worker

Spent

NURSE D

Employment Cost	\$ 39.46
Initial Orientation to Ward	
Charged to Cost of Employment	1.65
Stationery Cost92
Salary of Nurse D	
for Two Days during Induction	20.80
Cost of X-ray	2.50
Total Cost of Employment	\$ 65.33

Physician, G.P.D.
Physician, Laboratory
Nurse, X-ray
Secretary, X-ray
Doctor, X-ray
Technician, X-ray
Clerk, Payroll Department
Clerk, I.M. Department
Assistant Head Nurse
(Ward Assigned)
Staff Nurse 1

Total Cost

TABLE X

THE WORKERS, TIME SPENT, AND HOURLY SALARY
USED IN CALCULATING EMPLOYMENT COSTS

NURSE E

Worker	Time Spent	Hourly Salary	Cost
Director, Nursing Service	12 min.	\$2.93	\$.59
Associate Director I	8 hrs 45 "	2.30	20.13
Associate Director II	14 "	2.45	.57
Secretary I, Nursing Service	39 "	1.58	1.03
Secretary II, Nursing Service	5 "	1.30	.11
Director, Personnel	1 "	2.90	.05
Senior Clerk, Personnel	13 "	1.40	.30
Clerk, Personnel	5 "	1.07	.09
Senior Clerk, Insurance	10 "	1.30	.21
Doctor, Health Service	30 "	2.62	1.31
Nurse, Health Service	4 "	1.58	.11
Clerk, Health Service	10 "	1.07	.18
Nurse, Eye Clinic	2 "	1.30	.04
Clerk, Record Room	1 "	1.30	.02
Clerk, Clinic Cashier	2 "	.99	.04
Clerk, Business Office	3 "	1.64	.08
Head Nurse (Emergency Room)	50 "	1.71	1.43
Head Nurse (Central Supply)	40 "	2.10	1.40
Medical Supervisor	1 hr 40 "	2.10	3.50
Surgical Supervisor	1 hr 30 "	2.10	3.15
Director, Residence Hall	5 "	1.58	.13
Receptionist, Residence Hall	11 "	1.03	.19
Technician, O.P.D.	3 "	1.60	.08
Technician, Laboratory	20 "	1.65	.53
Clerk, X-ray	1 "	1.30	.02
Secretary, X-ray	9 "	1.35	.20
Doctor, X-ray	3 "	4.34	.22
Technician, X-ray	1 hr 4 "	1.64	1.74
Clerk, Payroll Department	8 "	1.20	.16
Clerk, IBM Department	6 "	1.52	.15
Assistant Head Nurse (Ward Assigned)	51 "	1.52	1.29
Staff Nurse 1	10 "	1.46	.24
Total Cost			\$ 39.29

TABLE XI

**COSTS INVOLVED IN EMPLOYMENT AND INITIAL
ORIENTATION TO UNIT OF**

NURSE E

Employment Cost	\$ 39.29
Initial Orientation to Ward	
Charged to Cost of Employment	1.32
Stationery Cost92
Salary of Nurse E	
for Two Days during Induction	20.80
Total Cost of Employment	\$ 64.83

employment through interview rather than correspondence, items 5, 6, 7, 8, and 13 of stationery listed in Table I (page 17) is omitted from this cost. Table XII shows the details of the cost of employing Nurse F exclusive of stationery, salary of Nurse F for two days during induction, and the initial orientation to the ward which was charged to cost of employment at the rate of her hourly salary of \$1.30. These are added and totaled in Table XIII on page 33, giving the total cost of employing Nurse F as \$62.47.

Comparison of costs. Table XIV on page 34 shows the comparison of total cost involved in employment and initial orientation of the six nurses who participated in the study.

In comparing the costs involved in employing six graduate staff nurses, it can be seen that individual costs did not vary appreciably. Employment costs without initial orientation to the ward, stationery, X-ray, and salary of the nurse herself during the two days of induction varied from \$37.31 to \$42.16. Total costs including the above varied from \$62.47 to \$69.93.

The cost involved in employing Nurse A was the highest. The factors which might account for this were: (1) Nurse A was the first participant in the study, and the workers might have been affected by the presence of the observer and, therefore, took a longer period of time to do their tasks. However, these workers had seen the observer during the try out of the data form. (2) The time spent in orienting Nurse A to the specific unit was greater than any other participant except Nurse F. It was stated earlier in the study that this time

TABLE XII

THE WORKERS, TIME SPENT, AND HOURLY SALARY
USED IN CALCULATING EMPLOYMENT COSTS

NURSE F

Worker	Time Spent	Hourly Salary	Cost
Director, Nursing Service	4 min.	\$2.93	\$.20
Associate Director I	8 hrs 49 "	2.30	20.28
Associate Director II	15 "	2.45	.61
Secretary I, Nursing Service	36 "	1.58	.95
Secretary II, Nursing Service	5 "	1.30	.11
Director, Personnel	1 "	2.90	.05
Senior Clerk, Personnel	6 "	1.40	.14
Clerk, Personnel	10 "	1.07	.18
Senior Clerk, Insurance	15 "	1.30	.33
Clerk, Health Service	5 "	1.07	.09
Clerk, Record Room	1 "	1.30	.02
Head Nurse (Emergency Room)	50 "	1.71	1.43
Head Nurse (Central Supply)	40 "	2.10	1.40
Medical Supervisor	1 hr 50 "	2.10	3.85
Surgical Supervisor	1 hr 30 "	2.10	3.15
Clerk, Payroll Department	8 "	1.20	.16
Clerk, IBM Department	6 "	1.52	.15
Head Nurse (Ward Assigned)	2 hrs 10 "	1.58	3.42
Staff Nurse 1	15 "	1.30	.33
Staff Nurse 2	5 "	1.35	.11
Staff Nurse 3	15 "	1.40	.35
Total Cost			\$ 37.31

TABLE XIII

COSTS INVOLVED IN EMPLOYMENT AND INITIAL
ORIENTATION TO UNIT OF

NURSE F

Employment Cost	\$ 37.31
Initial Orientation to Ward	
Charged to Cost of Employment	3.58
Stationery Cost78
Salary of Nurse F	
for Two Days during Induction	20.80
Total Cost of Employment	\$ 62.47

would vary depending upon the nurse's needs and the hospital's philosophy regarding orientation. (3) The head nurse's salary and the orienting of Nurse A which also accounted for the cost of the head nurse's salary is given in TABLE XIV.

TABLE XIV
COST INVOLVED IN EMPLOYMENT WITH AND WITHOUT
INITIAL ORIENTATION OF SIX NEW
GRADUATE STAFF NURSES

Nurse	Without Initial Orientation	With Initial Orientation
A	\$ 42.16	\$ 69.93
B	38.79	64.23
C	39.06	65.08
D	39.46	65.33
E	39.29	64.83
F	37.31	62.47

Nursing Service 85 per cent

Personnel 1.3 per cent

Laboratory 1.0 per cent

Secretarial 1.6 per cent

Miscellaneous 4.8 per cent

Miscellaneous includes doctor's time and the time of the receptionist in the Women's Residence Hall. The above breakdown of the above contributions to the cost of employment is greatly for the other five nurses.

would vary depending upon the nurse's needs and the head nurse's philosophy regarding orientation. (3) The head nurse did most of the orienting of Nurse A which also accounted for a higher cost since the head nurse's salary is greater than that of any of the other nurses in the assigned unit.

Nurse F showed the lowest total cost involved in employment. The factors which might have accounted for this were: (1) Nurse F was a graduate of X Hospital, so some of the details were omitted from the employment procedure. (2) Nurse F was not required to have a physical examination or the X-ray ordinarily given to all new employees since she had just completed these two procedures as part of her termination as a student in X Hospital.

Allocation of costs. The cost of employment of Nurse A was broken down into the per cent each personnel group contributed to this cost. The following figures show these percentages:

Nursing Service	86 per cent
Personnel	1.8 per cent
Laboratory	5.8 per cent
Secretarial	1.6 per cent
Miscellaneous	4.8 per cent

Miscellaneous includes doctor's time and the time of the director and receptionist in the Women's Residence Hall. The proportion of each of the above contributions to the cost of employment did not vary greatly for the other five nurses.

Table XV, computed from the diaries, shows the comparison of the amount of time spent by the personnel of each unit in orienting the new nurse to her job.

The factors which might have accounted for Nurse A's longer period of orientation to the ward are: (1) the head nurse of this unit is known for her administrative ability and the good orientation program which exists in her unit; (2) the diary of Nurse A shows that the head nurse did most of the orientation which might mean that the ward was less busy and this did not have to be delegated to other members of the staff.

The factors which might have accounted for the longer period of orientation to the ward for Nurse F are: (1) this nurse was assigned to a specialized area with a formal patient teaching program; (2) the isolation techniques and special procedures required more orientation time.

No great difference in initial orientation was shown by the diaries of the other four nurses as far as time spent in this process. The amount of time which should be given to this part of the employment procedure will vary in different hospitals and in the same hospital for different areas and different nurses.

Another factor which might be considered in a study where workers are observed as they perform their tasks is that some workers who are being timed may work more quickly under this type of observation and thus may affect the total cost of employment, while others may work more slowly when being observed and thus may increase employment costs.

Turnover comparison. During the fiscal year ending June 30, 1952, the turnover among the staff of the hospital was 182.7 per cent. This was calculated using the following formula:

TABLE XV

TIME SPENT BY WARD PERSONNEL IN INITIAL
ORIENTATION OF THE SIX NEW GRADUATE
STAFF NURSES

Nurse	Ward Assigned	Time Spent
A	Surgical	2 hours, 45 minutes
B	Medical	1 hour, 5 minutes
C	Surgical	1 hour, 23 minutes
D	Medical	1 hour, 13 minutes
E	Surgical	1 hour, 1 minute
F	Tuberculosis	2 hours, 50 minutes

Although an increasing amount of information is being gathered indicating the extent and cost of labor turnover, the statistical evidence is still lacking.²⁰ The cost of labor turnover in personnel is beyond all comparison with the cost of labor turnover to each employer, employee, nation, and community. It can be seen by a study such as this that even a small change in financial outlay to his organization, time, and energy, can

²⁰ Gordon Watkins and Paul Boda, *The Labor Market and Labor Relations* (New York: McGraw-Hill Book Co., 1947), p. 10.

²¹ *Ibid.*, p. 239.

Turnover comparison. During the fiscal year of July 1, 1951, to June 30, 1952, the turnover among the graduate staff nurses at X Hospital was 182.7 per cent. This was calculated on the basis of the following formula:

$$T \text{ (turnover rate)} = \frac{S \text{ (separations)}}{F \text{ (average working force)}} \times 100$$

From July 1, 1952, to June 30, 1953, the turnover was 144 per cent, and during this twelve-month interval 185 nurses were employed. If this figure were multiplied by the average cost involved in employing a new nurse as determined by this study (\$65.33), the total cost to X Hospital for the fiscal year of 1952 to 1953 would be \$12,086.05.

II. PRECAUTIONS IN INTERPRETING DATA

Although an increasing amount of information is being accumulated indicating the extent and cost of labor turnover, adequate statistical evidence is still lacking.²⁰ The total cost of constant change in personnel is beyond all computation, yet it is none the less real to each employer, employee, and to society as a whole.²¹ It can be seen by a study such as this that every employee represents a financial outlay to his organization; thus, too, "every change that

²⁰ Gordon Watkins and Paul Dodd, The Management of Labor Relations (New York: McGraw-Hill Book Company, Inc., 1938), p. 238.

²¹ Ibid., p. 239.

occurs in the personnel of an organization entails a financial loss."²²

In nursing, it is not easy to determine how much a new nurse slows down the work of her colleagues while she is being oriented, or how the quality of care to the patient is altered. In industry where production can be calculated and damage to material and spoiled work, breakage of machines, or accident to the worker or workers can be estimated, this figure can be obtained and a more accurate cost determined. Statistical studies of the frequency and causes of industrial accidents have proved conclusively that the accident frequency rate tends to be excessively high among new employees.²³ The costs to the individual employee and society are difficult to measure in terms of dollars and cents, but they are real, comprising a financial loss to both the organization and to society as a whole. However, the employee may later become so valuable to the organization that this initial financial outlay is more than compensated.

The data forms were further analyzed as to the various tasks each worker performed. From this study it was readily seen that there were some details in which employment costs could be lowered if employees receiving lower salaries could do some of the less detailed work. For example, when assistance in filling out blanks is given by the Associate Director, this procedure is going to cost more than it

²² Ibid., p. 240.

²³ Ibid., pp. 241-42.

would if clerical assistance could be used; however, the presence and assistance which this higher paid employee gives in this service may be well worth the good will and impression of friendliness it affords the new staff nurse. Other instances such as this can be analyzed in this study, but one has to decide whether or not the extra cost is justified.

III. SUMMARY

The one thing which this study did not show because of the method of collecting the data was the waiting time of the nurse while the many details of the employment procedure in which her presence was needed were completed. For example, Nurse B reported to the Nursing Service Office at 8:30 a.m., and it took her until 11:15 a.m. to complete the details involving the Personnel Department, X-ray Department, Health Service, and the Laboratory. The time it took the workers where her presence was needed was forty-two minutes, which means that the remaining time, or two hours and forty-five minutes, of the nurse's time was spent in waiting. In money, this means \$3.57 was lost because of this waiting factor. The other five nurses waited a comparable time the first morning of their employment. Nurses at X Hospital usually begin their employment on Monday morning. This morning is a busy one for all the departments and this probably helps to make the waiting time of the new nurse longer than were she employed on a day later in the week.

Another element affecting cost which would be an important factor in studies of this type is the amount of time given by administrators in mental decision and conference with their associates as

to the selection of staff nurses before appointment to positions.

This was not a factor in this study since staff nurses were difficult to secure when this study was done, and little effort was made by X Hospital to screen new applicants as long as they met requirements for state registration.

III. SUMMARY

This chapter presents an analysis and interpretation of the data obtained on the forms used in collecting and tabulating the data for determining the cost of employing six graduate staff nurses at X Hospital. The cost of stationery used in the employment procedure for one graduate staff nurse is given, and the employment procedure for each of the six nurses studied is described with the aid of tables showing how their cost of employment was determined. A break down is done on the allocation of costs to each department in the employment procedure, and a comparison of the time spent by the personnel of each unit in the initial orientation of the new staff nurse is shown. Turnover figures are given for the staff nurse group for the past two years, and budgetary implications made in regard to the number of nurses employed are for the fiscal year of 1952-1953. Precautions to be observed in interpreting the data are discussed.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

I. SUMMARY

This study was undertaken to develop a method for determining the costs involved in the employment and initial orientation to the ward of a general staff nurse and the average cost of such a procedure and to make recommendations in relation to employment costs and turnover figures.

The method which was developed in this study follows:

A form for collecting and tabulating data was devised, tried out on one graduate nurse, revised, and used in following six new graduate staff nurses as they were employed in X Hospital during April and May, 1953, and timing the various workers as they carried out the procedures involved in the employment process. Those employees who entered into the employment procedure were contacted, their cooperation was sought, and they were instructed as to their part in the study. The new staff nurses were oriented concerning the study, and a small notebook was given to each nurse to be used as a diary in collecting the data for the ten-day period when she was first assigned to a ward. After the ten-day period was completed these data were transferred to the form used for collecting and tabulating the information obtained. The costs involved in employing each of the six nurses were then computed on the basis of the hourly salary rate of those workers involved in the procedure.

The study on the costs involved in the employment and initial orientation to the ward of a graduate staff nurse at X Hospital shows that these costs did not vary greatly for this type of worker, the minimum cost being \$62.47 and the maximum, \$69.93.

II. CONCLUSIONS

Fluctuations in employment costs is dependent upon the number of workers, the time required to fulfill the tasks in the procedure, and the salary of the workers who perform these tasks.

A single figure cannot be used as the final one in considering costs involved in the employment of a graduate staff nurse. As details are added to the procedure or taken away, and as long as tasks and workers are to be considered, the costs will vary from time to time.

Each institution desiring to determine employment costs would need to conduct its own study. The method used in this study is presented as a possible method for other organizations to use, and would be applicable to a study for determining costs involved in employing other members of a hospital staff.

Every employee represents a financial outlay to his organization upon employment. The study of these costs can be of value to an institution to the degree that methods to reduce the costs are discovered and plans are made to utilize the method.

III. RECOMMENDATIONS

That because new workers tend to be less efficient than old ones, studies be done to show the relationship between the quality of nursing care during periods of initial orientation of new staff nurses and periods when a stable staff is present.

That the costs involved in employing a graduate staff nurse be considered in the budget of the Nursing Service Department.

That every effort be made to eliminate as much as possible the time spent by the nurse in waiting.

That a study on the causes of turnover be made and the results used as a basis for action to lower the rate of turnover.

That careful consideration be given to the utilization of lower paid employees, wherever feasible, in the employment procedure.

That days other than Monday be used to begin the employment procedure in order to determine whether the procedure could be facilitated in this way.

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APPENDIX A

This appendix contains copies of written files
the Merchants and Manufacturers Association
Los Angeles, California, in response to
inquiries concerning employment security.

M
N
M
Tucker 7201: Second Floor, 727 South Spring Street
Founded 1896 Los Angeles, California

May 24, 1934

Miss Marie Ames, R. N.
Miss Dexter
Durber, Colorado

APPENDIX A

Dear Miss Ames: This appendix contains copies of replies from
In response the Merchants and Manufacturers Association,
Los Angeles, California, to the writer's
inquiries concerning employment costs.

Yours truly,

We hope this material will prove useful.

Sincerely,

12/12/34

WILLIAM H. HAWKINS
DIRECTOR OF RESEARCH

WHL
Enclosures - 2

M
& M
MERCHANTS AND MANUFACTURERS ASSOCIATION
For Better Employment Relations
Tucker 7201: Second Floor, 725 South Spring Street,
Founded 1896 Los Angeles 14, California

May 14, 1953

Miss Marie Ames, R. N.
1439 Dexter
Denver, Colorado

Dear Miss Ames:

In response to your inquiry of May 7, I am sending a copy of the questionnaire used in connection with our 1948 survey on Employment Turnover Costs, together with a copy of the form letter of transmittal used.

We hope this material will prove useful.

Sincerely,

/s/ David G. Soash

DAVID G. SOASH
Director of Research

DGS/fr
Enclosures - 2

Sincerely,

DAVID G. SOASH
Director of Research

M
&
M
Tucker 7201: Second Floor, 725 South Spring Street,
Founded 1896 Los Angeles 14, California

March 25, 1948

TO PARTICIPANTS IN THE M & M
MONTHLY TURNOVER STUDY

Gentlemen:

Each month, as you know your association compiles information on employment turnover in major industries of the Los Angeles area. In order to make this material more meaningful it has been suggested that we obtain certain cost and other important data pertaining to this subject.

We are sending you the enclosed questionnaire with the hope that you will be able to supply most of the information requested. If you do not have answers for all the questions, please give us what material you do have.

The information obtained will be used in preparation of a Survey Analysis on the subject of "Turnover Costs." By this publication we hope to call the attention of some of our member firms to the value (dollars and cents) of maintaining a relative degree of employment stability.

A return reply envelope is enclosed for your convenience. Thank you for your cooperation.

Sincerely,

DAVID G. SOASH
Director of Research

How many weeks (do) **TURNOVER - COST ANALYSIS**

one employee may be cons **CONDUCTED BY**
RESEARCH DEPARTMENT
MERCHANTS AND MANUFACTURERS ASSOCIATION
 725 South Spring Street
 Los Angeles 14

1. What is the estimated cost of separation of the average employee?

Estimated value of production lost from
 time he decides to quit until he quits? \$ _____

Estimated cost of time taken by supervisor,
 personnel man, etc., in exit-interview, etc.? \$ _____

Estimated cost for paper-work, payroll account-
 ing, turning in pass, tool checks, etc? \$ _____

2. What is the estimated cost for procurement per new worker?

Estimated cost per-hire for:

advertising, travel cost, commissions,
 bonuses, etc.? \$ _____

interviews, physical examinations? \$ _____

testing, placement? \$ _____

paper work, badge, pass, etc? \$ _____

training, induction and orientation? \$ _____

extra spoilage, extra inspection? \$ _____

extra supervision, extra paper work, other
 items? \$ _____

Total \$ _____

3. How many weeks (do you estimate) are required before the average new employee may be considered competent enough to earn his basic rate?

<u>Shop & Maintenance</u>	<u>No. of Weeks</u>	<u>Office</u>	<u>No. of Weeks</u>
Unskilled	_____	Routine	_____
Semi-skilled	_____	Specialized	_____
Skilled	_____		
<u>Technical</u>		<u>Supervision</u>	
Routine	_____	First line	_____
Design	_____	Major	_____

Staff & Administrative

Minor (Signed) _____

Industry classification Major _____

4. Of your February, 1948, separations, what percent of those who quit came from each of these classifications?

	<u>Percent</u>		<u>Percent</u>
Shop	_____	Supervision	_____
Office	_____	Staff & Administrative	_____
Technical	_____		

5. Data re: February, 1948, separating employees:

For Better Employment Relations
Tucker 7201: Second Floor, 725 South Olive Street
Founded 1896
What were the reasons given?

	<u>How Many</u>		<u>How Many</u>
Total number?	_____	Health?	_____
men?	_____	Wages?	_____
women?	_____	Lack of Opportunity?	_____
Employed for less than	_____	Family reasons?	_____
3 mos.?	_____	Leaving State?	_____
From 3 mos. to 1 year?	_____	Transportation?	_____
Over 1 year?	_____	Other reasons?	_____

1948, shows the average cost of turnover for 1948.
in forty-nine representative (Signed) _____

Industry classification _____
Company _____

We hope that these figures will -o0o-

ALL ABOVE INFORMATION WILL REMAIN CONFIDENTIAL AS TO SOURCE.

M
&
M
Tucker 7201: Second Floor, 725 South Spring Street,
Founded 1896 Los Angeles 14, California

MERCHANTS AND MANUFACTURERS ASSOCIATION
For Better Employment Relations

June 9, 1953

Miss Marie Ames
1439 Dexter
Denver, Colorado

Dear Miss Ames:

Your letter addressed to Mr. Soash has been referred to me for reply. This appendix contains a copy of the report which was granted by the Director of Labor Statistics to conduct the study. Our survey analysis "Employment Turnover Costs", which was written in 1948, shows the average cost of turnover per employee to be \$191.65 in forty-nine representative local companies. However, later reports show that the average turnover costs will range from \$85 to \$350 per worker, depending upon the type of job. We hope that these figures will give you some indication of the cost of turnover to employers.

Sincerely,

/s/ John R. Milich

JOHN R. MILICH
Research Consultant

JRM/fr

X HOSPITAL

Denver, Colorado

Office of
Director of Hospital

May 12, 1941

Miss Marie Ames
University of Colorado
Department of Medicine
1201 East Ninth Avenue
Denver 20, Colorado

APPENDIX B

This appendix contains a copy of the permission which

was granted by the Director of X Hospital

to conduct the Study

It will be quite all right for you to use the results of the

the "Cost of Employment of a Graduate Staff" study as a basis for

should be a very interesting study and I will be glad to receive

summary of your results when you have completed the study.

Yours sincerely,

John D. Ames

John D. Ames
Director of Hospital

X HOSPITAL

Denver, Colorado

Office of
Director of Hospital

March 12, 1953

Miss Marie Ames
University of Colorado
Department of Medicine
4200 East Ninth Avenue
Denver 20, Colorado

Dear Miss Ames:

It will be quite all right for you to undertake your study on the "Cost of Employment of a Graduate Staff Nurse". I think this should be a very interesting study and I will be happy to have a summary of your results when you have completed the study.

Yours sincerely,

/s/ John Doe

John Doe, M. D.
Director of Hospital

UNIVERSITY

DEPARTMENT OF NURSING

Inter-office Communication

Date: 10/1/51

TO: Miss Marie Ames

FROM: Jane Doe

SUBJECT: "Cost of the Employment of a Graduate Nurse"
Master Degree thesis. Marie Ames.

APPENDIX C

This appendix contains a copy of the permission
"Graduate Nurse" which was granted by the Director of
Degree thesis, will Nursing Service in X Hospital
other institutions to conduct the Study
whatever facilities you may need in X Hospital.

/s/ Jane Doe

Jane Doe
Director of Nursing Service

UNIVERSITY
DEPARTMENT OF MEDICINE
Inter-office Communication

Date: March 19, 1953

TO: Miss Marie Ames
FROM: Jane Doe
SUBJECT: "Cost of the Employment of a Graduate Staff Nurse"
Master Degree thesis. Marie Ames.

APPENDIX B

I feel the study on the "Cost of the Employment of a Graduate Nurse" which you are planning to make for your Master Degree thesis, will be of value not only to our institution, but to other institutions as well. I will be glad to have you use whatever facilities you may need in X Hospital.

/s/ Jane Doe

Jane Doe
Director of Nursing Services.

Dear Miss

I am doing a study on the "Work of experience of the Staff Nurse." In order to make this study a success, I shall ask your help in relation to the "Study." I am receiving from your clinical supervisory head the names of the members of the staff on the specific unit where the study will be conducted.

You will be given a small notebook with a pocket for your uniform pocket. Please bring it to duty with you, for the ten-day period you are on the ward. **APPENDIX D**

This appendix contains a copy of the letter which was given to each new staff nurse who participated in the Study to acquaint her with its purpose and how to keep the Diary during the ten-day period. Each line has the words activity, time, and name above it. As you receive any instruction which refers to you with the unit, record what it is in the diary.

"How to set up for an I. V." Time, to see the time of the day you this instruction and record in the diary. This activity represents this activity, such as: 10 minutes. The person who refers to the person who does this instruction, such as Miss Jones, and her title, such as Head Nurse or Staff Nurse.

Please keep account of this information for the ten-day period you work on the unit. Feel free to record anything that you think names will be mentioned in the completed diary. When the diary is completed, turn in your notebook to the Head Nurse or Staff Nurse Office.

Dear Miss : greatly appreciated as

I am doing a study on the "Cost of Employment of a Graduate Staff Nurse." In order to make this study as complete as possible I shall ask your help in relation to the orientation you will be receiving from your clinical supervisor, head nurse, and other members of the staff on the specific unit where you will be assigned.

You will be given a small notebook which will fit into your uniform pocket. Please bring it to duty with you for the first ten days you are on the ward. Each page has been lined with date which means the current day you will be recording for, and hours which means the hours you are working that day, such as 7:30 to 4 p.m.

Each line has the words activity, time, and by whom written above it. As you receive any instruction which is used to acquaint you with the unit, record what it is in the activity column, such as "how to set up for an I. V." Time, to see how long it takes to give you this instruction and record in the time column. Use figures to represent this activity, such as: 10 minutes. The column by whom refers to the person who does this orientation. Write her name, such as Miss Jones, and her title, such as Head Nurse or Assistant Head Nurse.

Please keep account of this orientation for the first ten days you work on the unit. Feel free to record accurately as no specific names will be mentioned in the completed study. When the ten days are completed, turn in your notebook to me in the Nursing Service Office.

Your help is greatly appreciated as by doing this you will contribute a valuable portion to the study.

Very sincerely,

Marie Ames

APPENDIX 2

This appendix contains a copy of
a one-day notation in the diary of

Nurse B

Order: April 3, 1953

ACTIVITY	TIME	
Care of Colostomy	10	
Intake & Output	7 minutes	

APPENDIX E

This appendix contains a copy of
a one-day notation in the diary of

Nurse B

Date: April 3, 1953Hours: 7:30 - 4

ACTIVITY	TIME	BY WHOM DONE
Care of Colostomy	10 minutes	Miss P (Assistant Head Nurse)
Intake & Output	7 minutes	Miss H (Staff Nurse)

APPENDIX F

This appendix contains a copy of the form which was used in collecting the data for determining the cost of employment. Nurse B is used to illustrate the time spent in the procedure by the various workers. The data form is not categorized because it simplified the checking and recording process, but it follows as nearly as possible the sequence of the employment procedure of the nurse.

DATA FORM

Nurse:

Date:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Original Correspondence	Reading Letter	Dictating Reply	Rereading and signing	Typing Reply	Interim Correspondence	Reading Letter	Dictating Reply	Rereading and signing	Typing Reply	Interview	Reserving Room	Orient to Residence	Room Deposit Slips	Follow up on Deposit	Assign to a Unit

NURSING SERVICE:

Director
Associate Director I
Associate Director II
Secretary I
Secretary II
Medical Supervisor
Surgical Supervisor
Head Nurse: Emergency Room
Head Nurse: Central Supply

PERSONNEL DEPARTMENT:

Director
Senior Clerk
Clerk
Senior Clerk, Insurance

HEALTH SERVICE:

Doctor
Nurse
Clerk
Nurse, Eye Clinic

WOMEN'S RESIDENCE HALL:

Director
Receptionist

CLERKS:

Clinic
Record Room
Business Office

15

101

Interview

12 Reserving Room
13 Orient to Residence
14 Room Deposit Slips
15 Follow up on Deposit

16 Assign to a Unit
17 Notification
18 Posting
19 Assign a Budget Number
20 Assist with Blanks
21 Escort to Personnel
22 Escort to Health Service
23 Escort to Unit
24 Introductions

25 General Orientation

26 Nursing Office Filing
27 Tickler Card
28 Appointment Card
29 Supervisor's Card
30 Mail Card
31 Evaluation Forms
32 Budget Book
33 Address Book
34 Payroll
35 Status
36 Signing Status

37 Personnel Department
38 Verify Name and Birth
39 Assist with Blanks
40 Call Record Room
41 Assemble Folder
42 Physical Appointment
43 Payroll Cards
44 Record Card

10 1 1/2 1/2 1 1 4 3 5 1 5/10

1 3/4 1 1/4 2 1 1 3 2 1

100
90
50
40

2 10 6 5 3
4 3 4

42	Physical Appointment
43	Payroll Cards
44	Record Card
45	Signing Status
46	Assign Chart Number
47	Health Service
48	Assist with Forms
49	Record Appointment
50	Make Necessary Slips
51	Direct to Laboratory
52	Prepare for Physical
53	Take Blood Pressure
54	Weigh and Measure
55	Physical Examination
56	Writing Physical Exam.
57	Vision Test
58	X-ray Charge
59	Room Deposit Receipt
60	Validate with Machine

Total Time Spent in Minutes	Hourly Salary Rate	Total
2	\$ 2.93	\$.10
552	2.30	21.12
8	1.58	.21
5	1.30	.11
100	2.10	3.50
90	2.10	3.15
50	1.71	1.43
40	2.10	1.40
1	2.90	.05
8	1.40	.19
18	1.07	.32
11	1.30	.24
35	2.62	1.53
4	1.58	.11
12	1.07	.20
4	1.30	.09
2	.99	.04
1	1.30	.02
3	1.64	.08

5 3

1

2 2 6 2

1 2 1

30 5

4

2

3

I.B.M. Department 79
Punch pay slip with tax 80
Balance Card 81
Sort and match Card 82
Assign Check Number 83
Place in pay register 84

Orientation to Unit 85
First Day
Second Day
Third Day
Fourth Day
Fifth Day
Sixth Day
Seventh Day
Eighth Day
Ninth Day
Tenth Day

1 / 1 / 2 /

40

10

5

10

Total Time Spent (Minutes)	Hourly Salary Rate	Total
6	1.60	.16
20	1.65	.55
1	1.30	.02
8	1.35	.18
63	1.64	1.72
3	4.34	.22
7	1.20	.14
6	1.52	.15
50	1.71	1.43
5	1.35	.11
10	1.30	.22
TOTAL COST		\$ 37.79

APPENDIX F

DEFINITIONS OF TASKS WHICH APPEAR ON DATA FORM

1. Original Correspondence. Correspondence between the first time between the nurse applicant and the Nursing Service. This would involve the steps as follows: Director in:

2. Reading the applicant's first letter.

3. Dictating.

APPENDIX G

4. Re-reading and signing the reply letter.

This appendix contains the definitions of the tasks which appear on the data form. These

5. Interview tasks are numbered on the data form to correspond with the numbers of the definitions.

on original correspondence:

6. Reading.

7. Dictating.

8. Re-reading and signing.

9. Typing reply.

10. Interview. A personal conference at which the applicant before employment.

12. Reserving a Room. APPENDIX G

DEFINITIONS OF TASKS WHICH APPEAR ON THE DATA FORM

1. Original Correspondence. Correspondence occurring for the first time between the nurse applicant and the Director of Nursing Service. This would involve the time spent by the Director in:
 - a. Reading the applicant's first letter,
 - b. Dictating the reply letter.
 - c. Re-reading and signing the reply letter.
 - d. Typing the reply.
2. Interim Correspondence. Correspondence ensuing after the first letter from the nurse applicant and involving the same steps as in original correspondence:
3. Reading,
4. Dictating,
5. Re-reading and signing,
6. Typing reply.
7. Interview. A personal conference or meeting with a nurse applicant before employment.

12. Reserving a Room. A telephone procedure from a member of the Nursing Service Office staff to the Receptionist in the Women's Residence Hall to make arrangements for the new nurse to live there.
13. Orient to the Residence. Acquainting the new nurse with the rules and policies of the Women's Residence Hall and escorting her to her room.
14. Room Deposit Slip. A form made out in duplicate by the receptionist in the Women's Residence Hall for the nurse to present at the Business Office when she makes partial payment of room rent.
15. Follow up on Room Deposit. Several days after the nurse has been assigned to a room in the Women's Residence Hall, the Director of the Residence checks with the Business Office to verify the nurse's deposit for the room.
16. Assign to a Unit. The procedure involving the decision which is made as to where the nurse is needed,
17. Notification of the clinical supervisor by a special form of this decision,
18. Posting on a list in the Nursing Service Office her date of arrival, preferences, and the ward to which she is to be assigned.

19. Each nurse must have a budget number assigned to her for payroll purposes.
20. Assist with Blanks. The assistance given the new nurse in filling out her application forms.
21. Escorting to Personnel Department;
22. Health Service; and
23. Unit.
Accompanying the new nurse to these areas and making the necessary introductions.
24. Introductions. This task is self-explanatory.
25. General Orientation. An introduction of the new nurse to her surroundings by means of a tour of the hospital and acquainting her with the things she needs to know about the history of the hospital, policies, and general procedures which she will be called upon to perform.
26. Nursing Office Filing. The system used in the Nursing Department of X Hospital for filing purposes:
27. Tickler card which is a card used to remind the Director of salary increments, date of appointment, and previous changes of status;
28. Appointment card which is used to give information as to date of

- appointment to the staff, address, and place of assignment;
29. Supervisor's card which is used to give the name of the new nurse, address, telephone number, and previous experience and is sent to the supervisor of the area to which the new nurse is assigned.
 30. Mail card. The card sent to the mail room of X Hospital with the nurse's name and address, thus informing this department that the nurse is a new employee.
 31. Evaluation Form. The form which is to be used for a written account of the nurse's performance. It is sent to the supervisor to be filled out after the completion of three months of service.
 32. Budget Book. A loose leaf book containing all the budget numbers available to Nursing Service. Each nurse must be assigned a budget number before she can be entered on the payroll.
 33. Address Book. A book to record new nurses' addresses.
 34. Payroll. A list of all members of Nursing Service who are to receive pay for the coming two-week period.
 35. Status. A form which is made out in duplicate, one copy of which goes to the Personnel Department, notifying them of the appointment of the new nurse.
 36. Signing Status. This status must be signed by the Director of

Nursing Service.

37. Personnel Department. The department in X Hospital which plans and administers personnel management programs within the basic policies of the hospital, formulates policies relative to promotion, welfare, and other employer-employee relationships.
38. Verify name and birth. Checking the name and birth date of the new nurse on the history form which is a part of the personnel record.
39. Assist with Blanks. The assistance given the new nurse in filling out the blanks for the Personnel Department.
40. Call Record Room. A telephone procedure to obtain the chart number for the new nurse's health record.
41. Assemble Folder. Arranging the various forms coming to this department for each new nurse, for future reference.
42. Physical Appointment. The telephone call placed by a member of the Personnel Department to Health Service giving Health Service the new nurse's chart number and obtaining an appointment date for her physical examination.
43. Payroll Card. A card used in the Personnel Department to keep a record of salary increments.
44. Record Card. A card used in the Personnel Department to keep a

record of vacations and other details of the employee's record.

45. Signing Status. The same status form which the Director of Nursing Service signs, requires the signature of the Director of Personnel.
46. Assign Chart Number. This refers to the procedure of calling the Record Room for a number for the new nurse's health history.
47. Health Service. An organized clinic of X Hospital which takes care of the health needs of all employees.
48. Assist with Forms. The assistance given the new nurse in filling out her health history.
49. Record Physical Appointment. Placing the appointment for the physical examination of the new nurse in the Health Service Appointment Book under the date and time due.
50. Make Necessary Slips. The laboratory and X-ray slips which the Health Service clerk fills out for each new nurse.
51. Direct to Laboratory. The necessary instructions given to the nurse by the clerk in Health Service to locate the laboratory.
52. Prepare for Physical Examination. The assistance given the new nurse in preparation for this procedure.
53. Blood Pressure. The reading and recording of the new nurse's

blood pressure.

54. Weigh and Measure. Taking the height and weight of the new nurse and recording in her record.
55. Physical Examination. An examination of the new nurse by the physician.
56. Writing Physical Examination. The health history of the new nurse as filled in by the doctor on a specified form.
57. Vision Test. Checking the sight of the new nurse.
58. X-ray Charge. The making of a receipt by the clinic clerk to inform the X-ray Department that the cost of this procedure is taken care of by charging to the Health Service Fund.
59. Room Deposit Receipt. The receipt made out by the clerk in the Business Office for the nurse showing she has made the deposit on her room.
60. Validate with Machine. The procedure used by the clerk in the Business Office to account in her records for the deposit on the room.
61. Laboratory. The department in X Hospital which is mainly responsible for analysis of blood, urine, and feces.
62. Drawing Blood. The procedure of obtaining a sample of blood

from a donor. *Form provided for this purpose.*

63. Blood Count. The procedure of analyzing the blood for routine count of red blood cells, white blood cells, and hemoglobin.
64. Urinalysis. The procedure of analyzing the urine for sugar and albumin, and testing the specific gravity.
65. X-ray Department. The department in X Hospital which is responsible for Roentgen studies of patients.
66. Reporting to X-ray. The procedure the clerk performs when the nurse presents herself to the X-ray Department.
67. Preparing for X-ray. The instruction given the new nurse including the measurements which are obtained by the technician before taking the X-ray. *The procedure is given by the technician.*
68. Taking the X-ray. Positioning the nurse and taking the picture. *Information on each employee including his salary is checked and rechecked at two times the day.*
69. Developing the X-ray. The process which the film undergoes before it is completed. This includes developing, washing, drying, clipping, and arranging in a folder with a number. *Information on each employee including his salary is checked and rechecked at two times the day.*
70. Reading the X-ray. The interpretation the doctor makes from his examination of the film. He checks the processing twice before the final reading and dictates the findings. *Information on each employee including his salary is checked and rechecked at two times the day.*
71. Typing X-ray Note. The doctor's interpretation is typed by a *typist.*

secretary on a form provided for this purpose.

72. Returning X-ray Note. The typed note is returned to the department requesting the X-ray.
73. Payroll Department. The department in X Hospital which is responsible for the payment of all employees.
74. Assigning Employee a Number. Each employee is assigned a chronological number for International Business Machine purposes.
75. Payroll Computation. A procedure which places a charge against the books of the Accounting Department for each employee. Each salary is checked and rechecked at this time for necessary deductions and withholdings.
76. Assemble File with Name. The procedure used in filing all the information on each employee including his various salary increments and sick days.
77. Tickler System for Public Employees' Retirement. A reminder card for this department as to when the deduction should be made for the Public Employees' Retirement Association which is the state pension for X Hospital.
78. Room Rent Deduction. The procedure used if a room is rented in the Women's Residence Hall by the new nurse.
79. I.B.M. Department. The department in X Hospital which uses

International Business Machines for payroll and accounting purposes.

80, 81, 82, 83, 84. Various steps in carrying each card through the I.B.M. machine.

85. Orientation to Unit. The necessary direction and instruction given the new nurse on the job to acquaint her with her job on the ward.

First Day through Tenth Day. The orientation the new nurse receives from her colleagues to acquaint her further with her job each of these days.